

## § 23.14

requested to a degree of efficiency compatible with the current state of the art. A determination of the possibilities of interference will be made as outlined in § 23.20. In certain cases frequencies or emissions may be authorized on a temporary basis to determine if interference will occur. During normal operations, emissions shall be centered about an assigned frequency. Non-centered emissions may be employed for short periods of time as needed to avoid interfering signals or meet fluctuating traffic loading: *Provided*, That the occupied bandwidth of these emissions be contained within the authorized bandwidth, *And provided further*, That prior to any such use, the Commission be notified of the reference frequency or frequencies proposed to be used in lieu of the assigned frequency.

[38 FR 22479, Aug. 21, 1973]

### § 23.14 Emission, bandwidth, modulation and transmission characteristics.

In the services under this part emissions are designated by their classification and their necessary bandwidth in accordance with the following procedures:

(a) *Designation of emissions in applications.* In applying for new frequency assignments for emissions not presently authorized, the emissions proposed to be used shall be described and their bandwidths specified as outlined in part 2 of this chapter.

(b) *Designation of emissions in authorizations.* The emission designations used in authorizations will indicate only the maximum value of the necessary bandwidth for each type of modulation authorized.

(c) *New types of emissions.* If application is made for a type of emission not covered by part 2 of this chapter, a full description of the emission must be provided and, if possible, measurements of its occupied bandwidth.

[38 FR 22479, Aug. 21, 1973, as amended at 49 FR 48701, Dec. 14, 1984]

### § 23.15 Emission limitations.

(a) For all transmitters placed into operation after September 19, 1973, and for all transmitters after September 19,

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1975, which operate on frequencies below 30 MHz:

(1) The occupied bandwidth of emission shall be confined within the least possible spectrum space consistent with the state of the art and the required quality of transmission, and in no event shall be more than the authorized bandwidth.

(2) Spurious emissions of transmitters of mean power of 50 kilowatts or less shall be attenuated at least 40 decibels below the mean power of the fundamental without exceeding the power of 50 milliwatts.

(3) Spurious emissions of transmitters of mean power exceeding 50 kilowatts shall be attenuated at least 60 decibels below the mean power of the fundamental and every effort should be made to keep the level of spurious emissions below the power of 50 milliwatts.

(b) For all transmitters placed into operation after September 19, 1973, and for all transmitters after September 19, 1975, which operate on frequencies above 30 MHz, the mean powers of emissions shall be attenuated below the mean output power of the transmitter in accordance with the following schedule:

(1) On any frequency removed from the assigned frequency by more than 50 percent up to and including 100 percent of the authorized bandwidth: At least 25 decibels;

(2) On any frequency removed from the assigned frequency by more than 100 percent up to and including 250 percent of the authorized bandwidth: at least 35 decibels;

(3) On any frequency removed from the assigned frequency by more than 250 percent of the authorized bandwidth: at least 43 plus 10 log (mean output power in watts) decibels, or 80 decibels, whichever is the lesser attenuation.

(c) When an emission outside of the authorized bandwidth causes harmful interference, the Commission may, at its discretion, require greater attenuation than that specified in this section.

[38 FR 22479, Aug. 21, 1973; 38 FR 24901, Sept. 11, 1973]